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have been painted, pigment-stained, or "pressure-treated." Pressure-treating compounds include, but are not limited to, chromate copper arsenate, pentachlorophenol, and creosote.

Waterwall furnace means a combustion unit having energy (heat) recovery in the furnace (i.e., radiant heat transfer section) of the combustor.

Yard waste means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs that are generated by residential, commercial/retail, institutional, and/or industrial sources as part of maintenance activities associated with yards or other private or public lands. Yard waste does not include construction, renovation, and demolition wastes, which are exempt from the definition of MSW in this section. Yard waste does not include clean wood, which is exempt from the definition of MSW in this section.

[56 FR 5507, Feb. 11, 1991, as amended at 60 FR 65384, Dec. 19, 1995; 65 FR 61753, Oct. 17, 2000]

§ 60.52a Standard for municipal waste combustor metals.

(a) On and after the date on which the initial compliance test is completed or is required to be completed under §60.8, no owner or operator of an affected facility located within a large MWC plant shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of 34 milligrams per dry standard cubic meter (0.015 grains per dry standard cubic foot), corrected to 7 percent oxygen (dry basis).

(b) On and after the date on which the initial compliance test is completed or is required to be completed under §60.8, no owner or operator of an affected facility subject to the particulate matter emission limit under paragraph (a) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 10 percent opacity (6-minute average).

(c) [Reserved]

§ 60.53a Standard for municipal waste combustor organics.

(a) [Reserved]

(b) On and after the date on which the initial compliance test is completed or is required to be completed under §60.8, no owner or operator of an affected facility located within a large MWC plant shall cause to be discharged into the atmosphere from that affected facility any gases that contain dioxin/furan emissions that exceed 30 nanograms per dry standard cubic meter (12 grains per billion dry standard cubic feet), corrected to 7 percent oxygen (dry basis).

§ 60.54a Standard for municipal waste combustor acid gases.

(a)–(b) [Reserved]

(c) On and after the date on which the initial compliance test is completed or is required to be completed under §60.8, no owner or operator of an affected facility located within a large MWC plant shall cause to be discharged into the atmosphere from that affected facility any gases that contain sulfur dioxide in excess of 20 percent of the potential sulfur dioxide emission rate (80 percent reduction by weight or volume) or 30 parts per million by volume, corrected to 7 percent oxygen (dry basis), whichever is less stringent. The averaging time is specified §60.58a(e).

(d) On and after the date on which the initial compliance test is completed or is required to be completed under §60.8, no owner or operator of an affected facility located within a large MWC plant shall cause to be discharged into the atmosphere from that affected facility any gases that contain hydrogen chloride in excess of 5 percent of the potential hydrogen chloride emission rate (95 percent reduction by weight or volume) or 25 parts per million by volume, corrected to 7 percent oxygen (dry basis), whichever is less stringent.

§60.55a Standard for nitrogen oxides.

On and after the date on which the initial compliance test is completed or is required to be completed under §60.8, no owner or operator of an affected facility located within a large MWC plant shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides in excess of 180 parts per million

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by volume, corrected to 7 percent oxygen (dry basis). The averaging time is specified under §60.58a(g).

§ 60.56a Standards for municipal waste combustor operating practices.

(a) On and after the date on which the initial compliance test is completed or is required to be completed under §60.8, no owner or operator of an affected facility located within a large MWC plant shall cause such facility to exceed the carbon monoxide standards shown in table 1.

TABLE 1—MWC OPERATING STANDARDS

MWC technology	Carbon mon- oxide emission limit (parts per million by vol- ume) 1
Mass burn waterwall	100
Mass burn refractory	100
Mass burn rotary waterwall	100
Modular starved air	50
Modular excess air	50
RDF stoker	150
Bubbling fluidized bed combustor	100
Circulating fluidized bed combustor Pulverized coal/RDF mixed fuel-fired com-	100
bustor	150
combustor	150

¹Measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen (dry basis). The averaging times are specified in § 60.58a(h).

- (b) No owner or operator of an affected facility located within a large MWC plant shall cause such facility to operate at a load level greater than 110 percent of the maximum demonstrated MWC unit load as defined in §60.51a. The averaging time is specified under §60.58a(h).
- (c) No owner or operator of an affected facility located within a large MWC plant shall cause such facility to operate at a temperature, measured at the final particulate matter control device inlet, exceeding 17 °Centigrade (30 °Fahrenheit) above the maximum demonstrated particulate matter control device temperature as defined in §60.51a. The averaging time is specified under §60.58a(h).
- (d) Within 24 months from the date of start-up of an affected facility or before February 11, 1993, whichever is later, each chief facility operator and shift supervisor of an affected facility located within a large MWC plant shall obtain and keep current either a provi-

sional or operator certification in accordance with ASME QRO-1-1994 (incorporated by reference, see §60.17) or an equivalent State-approved certification program.

- (e) No owner or operator of an affected facility shall allow such affected facility located at a large MWC plant to operate at any time without a certified shift supervisor, as provided under paragraph (d) of this section, on duty at the affected facility. This requirement shall take effect 24 months after the date of start-up of the affected facility or on and after February 11, 1993, whichever is later.
- (f) The owner or operator of an affected facility located within a large MWC plant shall develop and update on a yearly basis a sitespecific operating manual that shall, at a minimum, address the following elements of MWC unit operation:
- (1) Summary of the applicable standards under this subpart;
- (2) Description of basic combustion theory applicable to an MWC unit;
- (3) Procedures for receiving, handling, and feeding MSW;
- (4) MWC unit start-up, shutdown, and malfunction procedures;
- (5) Procedures for maintaining proper combustion air supply levels;
- (6) Procedures for operating the MWC unit within the standards established under this subpart;
- (7) Procedures for responding to periodic upset or off-specification conditions;
- (8) Procedures for minimizing particulate matter carryover;
 - (9) [Reserved]
 - (10) Procedures for handling ash;
- (11) Procedures for monitoring MWC unit emissions; and
- (12) Reporting and recordkeeping procedures.
- (g) The owner or operator of an affected facility located within a large MWC plant shall establish a program for reviewing the operating manual annually with each person who has responsibilities affecting the operation of an affected facility including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.